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COPY CS Docket No.  
97-80

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McGUIREWOODS

April 2, 2007

**VIA HAND DELIVERY**

Federal Communications Commission  
Media Bureau  
P.O. Box 358205  
Pittsburgh, PA 15251-5205

**Re: Petition for Waiver - CS Docket No. 97-80**

Dear Sir/Madam:

On behalf of Local Internet Service Company, ("LISCO"), transmitted herewith are an original and four (4) copies of its Petition for Waiver. Specifically, LISCO petitions the FCC for waiver of the set-top box integration ban set forth in of Section 76.1204(a)(1) until December 31, 2009. The required filing fee of \$1,250.00 in the form of a check made payable to the Federal Communications Commission, a Form 159, and an original of this letter are also attached.

Acknowledgement and date of receipt of this filing is requested. A duplicate copy of this filing is provided for this purpose.

Should you have any questions concerning this matter, please contact the undersigned at 202-857-1707.

Sincerely,

  
James U. Troup

Counsel for Local Internet Service Company

Enclosures

No. of Copies rec'd 2  
List A B C D E

**Before The  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

~~CONFIDENTIAL~~

In the Matter of	)	
	)	
Local Internet Service Company	)	
	)	CSR- <u>7152-2</u>
Petition for Wavier of Section 76.1204(a)(1)	)	
of the Commission's Rules	)	
	)	
Implementation of Section 304 of the	)	CS Docket No. 97-80
Telecommunications Act of 1996	)	
	)	
Commercial Availability of Navigation Devices	)	
_____	)	

**PETITION FOR WAIVER**

Local Internet Service Company ("Petitioner"), by its undersigned attorneys, and pursuant to Section 629(c) of the Communications Act,<sup>1</sup> and Sections 1.3 and 76.7 of the Commission's rules,<sup>2</sup> respectfully petitions the FCC for waiver of the set-top box integration ban set forth in Section 76.1204(a)(1) until December 31, 2009.<sup>3</sup> As further discussed below: navigation devices that are compatible with Petitioner's proposed all-digital video distribution network and that comply with the FCC's integration ban are not available. **and** a waiver is warranted to enable Petitioner to begin providing new advanced digital video service offerings in the small rural communities that it intends to serve.

It is not entirely clear how Petitioner's IPTV system fits into the Commission's integration ban. In Petitioner's IPTV system, the set-top box is fed by an MPEG-4 IP stream on a CAT-5 cable, and not a video signal on a coax cable. The output of the set-top box is a standard

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<sup>1</sup> 47 U.S.C. § 629(c).

<sup>2</sup> 47 C.F.R. §§ 1.3, 76.7.

<sup>3</sup> 47 C.F.R. § 76.1204(a)(1).

video signal, but is not encrypted, and there is a single channel, so there is no need for a cablecard to interface with third-party devices.

The set-top box contains a “navigation device.” It also contains encryption software for content security. Conditional access also resides as software in the video server in the central office of Petitioner. Upon the customer navigating to a particular channel, Petitioner’s system only sends that particular channel to the customer’s set-top box if the channel is on the customer’s subscription list.

Given the unusual nature of IPTV, Petitioner requests this waiver. In support hereof, Petitioner states as follows:

## **I. BACKGROUND**

As part of its broadband triple-play offering, Petitioner seeks to be a multichannel video programming distributor (“MVPD”) in small rural communities in Iowa. Petitioner does not provide video services at this time. Petitioner received an RUS broadband loan to overbuild fiber in Fairfield, Iowa (population 9,602), and intends to begin providing brand new video services to households in Fairfield, Iowa through its all-digital fiber broadband IPTV video distribution network. Petitioner is one of several small MVPDs in Iowa that obtains or will obtain video programming through a central distribution network connected to a headend operated by Iowa Network Services, Inc. (“INS”). Due to the all-digital, Internet Protocol (IP) nature of Petitioner’s system, it is necessary for all video service subscribers to use a set-top box in order to access video programming. Subscribers cannot view any channels without using digital set-top boxes because no analog television signals are distributed through Petitioner’s video system. Since Petitioner uses an IPTV technology, no video is distributed to subscriber’s home without a set-top box to request a channel and convert it from an IP-MPEG-4 signal to a standard video signal. Petitioner’s all-digital IP network will enable it to provide an unlimited

number of channels efficiently, and to provide additional high-quality and innovative features such as high definition video programming and video-on-demand (both *planned for rollout in the near future*), and broadband Internet services (currently being provided), without the overhead and expense of simultaneously transmitting all television channels to the home,

Petitioner will utilize set-top boxes that incorporate “middleware.” that is, software that allows the set-top boxes and MVPD systems to communicate with each other. Middleware coordinates, among other things, the electronic program guides, video-on-demand programs, pay-per-view services, interactive television capabilities, transmission ~~of~~ data, and channel selection functions of the set-top box. Petitioner depends on INS for selection of the middleware. INS is considering middleware that works with two encryption systems, Widevine and NagraVision.

With respect to the Widevine solution, middleware vendors of set-top boxes that will be used in Petitioner’s video system utilize a downloadable conditional access solution (“DCAS”) supplied by Widevine. The Widevine system uses proprietary software and decryption algorithms to ~~permit~~ viewers to access video programming. Set-top boxes used in Petitioner’s video system must be specifically configured and provisioned for use with ~~the~~ Widevine solution.

Other middleware vendors for set-top boxes that will be used in Petitioner’s video system utilize a conditional access system provided by NagraVision. NagraVision also manufactures or supplies the set-top boxes used with its conditional access system. The NagraVision solution uses a ~~point-of-deployment~~ module (“POD”), i.e., a smartcard, with the set-top boxes to allow access to Petitioner’s video service. CableCARDS are PODs that are used in the cable television industry to allow customers to gain condition access to video programming using televisions and

navigation devices purchased through retail outlets. However, the Nagravision smartcards utilize a proprietary form factor that does not adhere to the standards for CableCARDS promulgated by the Personal Computer Memory Card International Association. Accordingly, the Nagravision smartcard cannot be used on navigation devices purchased at retail, and if **INS** chooses Nagravision, the set-top boxes used by Petitioner's subscribers must be supplied or manufactured by Nagravision..

Through INS, Petitioner has contacted its middleware provider in an attempt to confirm that its implementation of the Widevine or Nagravision conditional access solution complies with the integration ban requirement to fully separate the security element from the basic navigation device.<sup>4</sup> Although some of the middleware providers have acknowledged receipt of INS's inquiry, to date, none of the providers have been willing to confirm that their conditional access implementations comply with the integration ban.

As further discussed below, grant of the requested waiver is necessary in order to permit Petitioner to provide advanced high-quality video and related digital services over its new all-digital distribution network to subscribers located in rural communities. This is a new service, and Petitioner has not yet started delivering programming to subscribers. Unlike large MVPDs, such as Comcast or Cox, Petitioner is a **very** small provider that does not have the market power or resources to influence manufacturer timetables to develop conditional access solutions that comply with the FCC's integration ban. Through INS, Petitioner has diligently made inquiries with its middleware provider to determine when an integration ban-compliant solution will be

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<sup>4</sup> See, *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, 13 FCC Rcd 14775, 14808, ¶ 80 (1998); 47 C.F.R. § 76.1204(a)(1).

available, however, those providers have not committed to making compliant devices available before the effective date of the integration ban, which is July 1, 2007.<sup>5</sup>

## 11. DISCUSSION

### A. Standard for Waiver

Beginning on July 1, 2007, pursuant to Section 76.1204(a)(1), Petitioner will be prohibited from installing or leasing set-top boxes that perform both conditional access and other functions in a single integrated device. The purpose of this rule is to ensure common reliance by cable operators and consumer electronics manufacturers on the same conditional access mechanism. Specifically, the FCC stated in its *2005 Deferral Order* that “the concept of common reliance is intended to assure that cable operator development and deployment of new products and services does not interfere with the functioning of consumer electronics equipment or the introduction of such equipment into the commercial market for navigation devices.”<sup>6</sup>

Generally, the Commission’s rules may be waived only for good cause shown.<sup>7</sup> The FCC has consistently ruled that a waiver is appropriate only if the requested relief would not undermine the policy objective of the rule in question, special circumstances warrant a deviation from the general rule, and that such deviation will serve the public interest.<sup>8</sup> The policy objectives of Section 76.1204(a)(1) of the Commission’s rules would not be undermined because the market for the commercial availability of non-integrated devices will not be affected by granting a waiver to Petitioners. Furthermore, special circumstances exist here because a

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<sup>5</sup> *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, 20 FCC Rcd 6794, 6802-03 ¶ 13 (2005) (“*2005 Deferral Order*”).

<sup>6</sup> *2005 Deferral Order* ¶ 30.

<sup>7</sup> 47 C.F.R. § 1.3.

<sup>8</sup> See generally, *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969), cert. denied, 409 U.S. 1027 (1972); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990).

conditional access solution that provides for common reliance is not available to Petitioner. Absent a waiver, Petitioner would not be able to begin providing a new all-digital IP video service to customers in Iowa. The public interest would be served by granting a waiver to Petitioner to permit the company to continue to provide and expand advanced video service to rural subscribers in Iowa. It is in the public interest to have an additional wired video provider in Petitioner's service area.

**B. A Limited Duration Waiver of the Integration Ban is Warranted Pursuant to Section 629(c) of the Act**

Section 629(c) of the Act states, in relevant part, that:

[t]he Commission shall waive a regulation adopted under subsection (a) of this section for a limited time upon an appropriate showing ... that such waiver is necessary to assist the development or introduction of a new or improved multichannel video programming or other service offered over multichannel video programming systems, technology, or products.<sup>9</sup>

The principal goal of Section 629 is to foster competition and consumer choice in the market for navigation devices,” and pursuant to Section 629(a),<sup>11</sup> the FCC is charged with adopting regulations that further that goal. However, Congress **also** intended “that the Commission avoid actions which could have the effect of freezing or chilling the development of new technologies and **services**.”<sup>12</sup> Accordingly, waiver **of** the Commission's rules regarding navigation devices are granted when doing so is necessary to assist the development or

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<sup>9</sup> 47 U.S.C. § 629(c).

<sup>10</sup> See S. Rep. 104-230 at 181 (1996) (Conf. Rep.).

<sup>11</sup> 47 U.S.C. § 629(a).

<sup>12</sup> See S. Rep. 104-230 at 181 (1996) (Conf. Rep.).

introduction of a new or improved service, such as, for example, a nascent MVPD offering from a new competitor.<sup>13</sup>

The Commission has recently considered requests for waivers under Section 629(c) submitted by BendBroadband and Cablevision seeking to use non-compliant set-top boxes with their existing cable television operations.<sup>14</sup> The FCC found that those requests did not warrant waivers because the advanced services that BendBroadband and Cablevision averred would be provided through the use of the subject set-top boxes were already available to their subscribers.<sup>15</sup> Thus, the Commission determined that the waivers requested by BendBroadband and Cablevision were not “necessary” for the “introduction” of services as required by Section 629(c).

By contrast, Petitioner is not yet providing any video or other advanced services through its distribution system. Rather, Petitioner is a new market entrant that does not have an established customer base. A waiver is necessary so that Petitioner can use the Widevine or Nagravision encryption system to introduce a new video service to rural communities that otherwise would not have access to the advanced services offered through Petitioner’s all-digital IP distribution network. Due to Petitioner’s small size and limited resources, it seeks to use technology that other rural MVPDs that are connected to INS’s central distribution network have successfully deployed. Petitioner’s strategy will enable the company to more quickly initiate service to rural communities in Iowa, and avoid large expenditures and delays needed to research, develop, and test equipment to determine whether such equipment will be compatible

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<sup>13</sup> *In the Matter of Bend Cable Communications, LLC d/b/a BendBroadband*, CSR-7057-Z, CS Docket No. 97-80 ¶ 11 (rel. Jan 10, 2007) (“*BendBroadband Waiver Order*”).

<sup>14</sup> *See generally, BendBroadband Waiver Order; In the Matter of Cablevision Systems Corporation*, CSR-7078-2, CS Docket No. 97-80, (rel. Jan. 10, 2007) (“*Cablevision Waiver Order*”).

<sup>15</sup> *BendBroadband Waiver Order* ¶ 13; *Cablevision Waiver Order* ¶ 14.



with INS's existing infrastructure and Petitioner's new video distribution system. Petitioner submits that a limited duration waiver until December 31, 2009, to allow Petitioner to introduce a new advanced all-digital video service to rural communities in Iowa while it investigates integration ban compliant alternatives through INS is necessary and warranted pursuant to Section 629(c).

**C. The Policy Objectives of the Commission's Integration Ban Would not be Undermined by Grant of the Requested Waiver**

As noted above, the purpose of Section 76.1204(a)(1) is to ensure common reliance by cable operators and consumer electronics manufacturers on the same conditional access mechanism. Although the integration ban may confer a general benefit to consumers as a whole; the grant of a waiver to Petitioner, who is an operator of a small rural video system, would have negligible impact as Petitioner does not have any ability whatsoever to influence manufacturers to build devices that comply with the FCC's integration ban. Moreover, application of the rule to rural MVPDs, such as Petitioner, which proposes to serve sparsely populated and largely agricultural areas, would have an effect that Congress expressly directed the Commission to avoid. Specifically, in enacting the Telecommunications Act of 1996, Congress directed the FCC to implement regulations to encourage the deployment of advanced telecommunications capabilities to all Americans."

As further discussed below, Petitioner, a provider of video programming via a broadband IPTV system, does not have any options available to provide set-top boxes to its customers that comply with the FCC's integration ban. Strict adherence to the letter of the rule would result in denying rural subscribers access to advanced all-digital video and related services, while

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<sup>16</sup> Telecommunications Act of 1996, Pub. L. No. 104-104, § 706, 110 Stat. 56, 153 (codified in notes under 47 U.S.C. § 157).

allowing carriers that have not made the commitment to upgrade to new and more advanced technologies, such as the IP digital network employed by Petitioner, to continue to provide basic legacy cable services. Such an outcome would frustrate the intent of Congress to promote, rather than deny: advanced services to all Americans, particularly when Congress also directed the Commission to “avoid actions which would have the effect of freezing or chilling the development of new technologies and services.”“

D. A Waiver is Necessary Because a Compliant Solution is not Available to Permit Petitioner to Continue to Provide IP Digital Service to its Customers After the Effective Date of the Integration Ban

As discussed above, Petitioner proposes to utilize a conditional access system that is provided by Widevine or Nagravision. Although the Widevine or Nagravision solution may comply with the integration ban requirement to provide security that is separable from the navigation device, at this time, Petitioner’s middleware provider has not confirmed this to be the case as some decryption or other function essential to the conditional access system may be integrated into the set-top box. Regardless of whether some necessary security function is incorporated into the set-top box, Petitioner believes that a waiver is necessary because the Widevine or Nagravision solution as implemented by its middleware provider does not satisfy the common reliance requirement in the FCC’s rules.

The purpose of common reliance is to enable customers to purchase set-top boxes from retailers for use on any cable system. However, due to the inherent difference between an IPTV system that sends an **MPEG-4 IP** stream to a set-top **box**, and an ordinary coax cable system that presents all channels at the set-top box simultaneously, the requirement for common reliance is

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<sup>17</sup> Joint Explanatory Statement of the Committee of Conference, S. Conf. Rep. **104-230**, 104th Cong., **2d Sess.** at 181 (1996).

not met. The set-top box in an IPTV system must convert an IP video stream to a standard video stream. That function is not part of a common reliance system.

The Nagravision solution requires subscribers to use a smartcard provided by Nagravision that does not conform to the specifications for CableCARDs. Nagravision does not provide for common reliance because subscribers cannot purchase a CableCARD compatible device and use it with the Nagravision smartcard in order to access Petitioner's video system. Rather, Petitioner's subscribers must lease set-top boxes from Petitioner that are compatible with the Nagravision smartcard. Because the Nagravision smartcard system is proprietary, Petitioner relies on Nagravision to provide both the set-top box and the smartcards for its video system. This arrangement does not satisfy the Commission's requirement for common reliance as set-top boxes used in Petitioner's video system are generally not interoperable with other systems, and vice versa.

Widevine is a proprietary downloadable conditional access system. The FCC has determined that DCAS "comports with the [Section 76.1204(a)(1)] ban on the inclusion of conditional access and other functions in a 'single integrated device' because, **by** definition, the conditional access functionality of a device with downloadable security is not activated until it is downloaded to the box by the cable operator. Thus, at the time the consumer purchases the device, the conditional access and other functions are not 'integrated.'"

However, Widevine's DCAS does not appear to provide for common reliance as required by the Commission. In the *2005 Deferral Order*, the FCC determined that DCAS is likely to facilitate a competitive navigation device market, and aid in the interoperability of a variety of

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<sup>18</sup> *2005 Deferral Order* ¶ 35.

digital devices.” However, Widevine is a closed proprietary DCAS, and it cannot be used with set-top boxes that have not been configured with the appropriate chipsets or other hardware and software. A customer with a set-top box using a non-Widevine DCAS would not be able to use that device with Petitioner’s video system. Verizon has observed DCAS must be open, universally interoperable, and network-agnostic in order to meet the Commission’s common reliance requirement.<sup>20</sup>

Petitioner is a very small MVPD proposing to provide video service to rural communities in Iowa. Given the insignificant size of its potential subscriber base when compared to those of the larger MVPDs, Petitioner does not have any ability to influence manufacturers or middleware providers to develop conditional access solutions that comply with the requirement for common reliance. Moreover, Petitioner does not have the resources or the expertise to develop such a solution on its own, and the company is completely dependent on outside providers for its set-top boxes and middleware. Accordingly, these special circumstances warrant waiver of the FCC’s integration ban as no other viable solution is available to Petitioner that meets the Commission’s requirement for common reliance.

**E. Grant of the Waiver is in the Public Interest Because it will Promote the Provision of Advanced All-Digital Video Service in Rural Areas**

In order to begin providing service to its customers, all of whom are located in rural areas in Iowa, and to maintain the viability of its proposed service offerings, Petitioner must use currently available set-top boxes and middleware as there are no other alternatives in the marketplace to the conditional access solutions currently being used by other similarly situated

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<sup>19</sup> 2005 Deferral Order ¶ 3

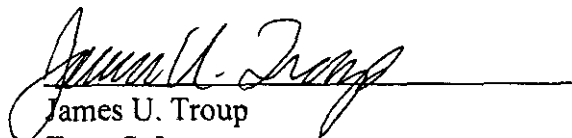
<sup>20</sup> Verizon’s Petition for Waiver of the Set-Top Box Integration Ban, 47 C.F.R. § 76.1204(a)(1), Docket No. 97-80, pp.12-14 (filed July 11,2006).

MVPDs in Iowa. After July 1, 2007, without the requested waiver, Petitioner would not be able to offer its subscribers the use of set-top boxes necessary to access even the basic features of its video system **due** to its IP all-digital transmissions, thereby disconnecting its customers from a primary source of news, entertainment, and advanced services available to video subscribers located in densely populated urban areas. Rural subscribers already have few, if any, choices for video programming and advanced services. and they may be located too distant from terrestrial television stations to receive reliable and good quality over-the-air transmissions. In Fairfield, the first town in which Petitioner will provide service, there are only two commercial stations in the DMA. Both stations broadcast from more than 20 miles away and require a large, rotating outdoor antenna for reasonable reception. A waiver is necessary to permit subscribers to enjoy the benefits that Petitioner's advanced all-digital video service will offer. and to allow Petitioner to introduce new advanced video services to subscribers that would not otherwise have access to high-quality video programming and related services in rural areas.

**111. CONCLUSION**

WHEREFORE, for the foregoing reasons, Petitioner requests that the Commission grant its Petition for Waiver of the integration ban set forth in Section 76.1204(a)(1) until December 31, 2009.

Respectfully submitted,



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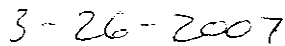
Counsel for Local Internet Service Company

Date: April 2, 2007

**CERTIFICATION**

I, David L. Magill, hereby certify under penalty of perjury that I am authorized to make this certification on behalf of Local Internet Service Company, that I have read the foregoing document and h o w the contents thereof; and that the same are true of my own knowledge, except to those matters therein stated upon information and belief. and as to those matters I believe them to be true.

  
\_\_\_\_\_  
David L. Magill  
VP Administration & Legal Affairs  
Local Internet Service Company

  
\_\_\_\_\_  
Date